REPLY COMMENTS OF LARRY LANGFORD

RE: CBS RADIO COMMENTS ON RM 11338 NPRM 07-172

Larry Langford is a longtime owner and engineer who has provided earlier comments on this NPRM. Langford is the licensee of WGTO AM and WDOW AM

I am not surprised by the comments made by CBS radio concerning the instant NPRM. However I am surprised that they have distorted the original intent of the NAB petition by coming up with a premise to support the “facts” of their presentation.

CBS makes a lot to do of the NAB position that the 60 dbu contour of the translator signal does not cross the 2 millivolt contour of the parent AM station or 25 miles whichever is the lesser. However in its engineering exhibits it assumes the NAB petition calls for complete fill in of the area 25 miles around the AM transmitter site or complete fill in of the 2 millivolt contour.

I respect CBS as a major broadcast concern. I even worked for the company for more than 20 years and I respect engineer Glynn Walden
with a reputation and experience base that far exceeds mine. He is a leader in the business.

However his data is based on flawed input criteria.

The CBS filing alleges that to satisfy the NAB petition a translator would have to operate in excess of 50 kilowatts ERP to cover 25 miles. While that statement is true as far as power and coverage go as demonstrated in the Comstudy presentation of CBS, it is not what the NAB had in mind. The 25 mile limit and the 2 millivolt contour are used as limits for LOCATION of the translator transmitter site, not a fill in goal.

Using the same COMSTUDY 2.2 software used by CBS, I have plotted a real world situation that would or could occur if the NAB petition used as the true basis of the study.

The attached engineering contour plots show that the CBS engineering is technically correct but misused regarding the NAB petition.

For the purposes of my drawings I inputted the 2 millivolt contour of WGTO as a typical mid band AM station. WGTO operates at 910khz at 1 Kw with a slightly directional two tower pattern.

If the 2 millivolt contour of the station is used as the limiting factor and it is assumed the FM antenna would be mounted at the top of one of the AM towers,

you will see that a translator power level of 50 kw clearly exceeds by a wide margin the 2 millivolt contour of the AM signal.

Let's look at a more realistic contour plot. Again using the NAB petition that calls for the lesser of the 2 millivolt contour or 25 miles as the LIMIT, let us input a power level of 1 kilowatt for the translator, again mounted atop one of the WGTO towers at about 80 meters. The drawing clearly shows that at one kilowatt the translator pattern for 60 dbu pretty much fills in the 2 millivolt contour of the AM station without exceeding it. This is what the NAB had in mind. 1 kilowatt is of course no where near the same at 50 kilowatts. I cannot understand how the seasoned staff of CBS could not realize how this is supposed to work.

The make the point even clearer lets plot the same situation for a higher band station. WDOW operates at 1440 with 1 kilowatt. You can see from the attachment that WDOW has a smaller 2 millivolt contour due to its higher dial position. Let us again assume the translator antenna is mounted as high as possible on the AM tower. You can see from the Comstudy 2.2 plot that at a translator power of 700 watts and a tower height of about 48 meters, The 60 dbu contour pretty much fills in the 2 millivolt contour of the AM station without exceeding it. This again shows the CBS position of a translator needing to be in excess of 50 kilowatts to satisfy the NAB petition is absurd. Again no disrespect to Mr. Walden. He was only plotting what CBS asked him to.

The NAB 25 mile limit was designed so that the site of the translator antenna could be erected anywhere in the coverage area of the AM station so long as the 60 dbu contour did not exceed the 25 mile limit or the 2 millivolt contour. Nothing in the NAB petition calls for compete fill in service with one translator. It is assumed the NAB was making the 2 millivolt /25 mile limit to CONTAIN the location of the translator to an area that would not cause service to extend the basic DAY coverage of the AM station. In the case of WGTO, following the NAB petition using current translator power limits, satisfactory coverage could be obtained over the two cities now covered by WGTO 5 millivolt Day contour with a translator power of less than 250 watts. If we elected to cover the largest city in our 2 millivolt contour (Niles Michigan) a separate translator operating at less than 100 watts could be located within the city limits of Niles which is about 16 miles from WGTO and still not have its 60 dbu contour exceed the 2 millivolt contour of WGTO.

This is what the NAB had in mind in the petition. The lawyers at CBS in typical fashion have distorted the facts to represent their cause. It is absurd on its face that anyone would think the NAB was proposing that translators operate at power level in excess of 50 kilowatts.

The FCC can easily implement regulations that would assure AM stations access to translators without all the trauma that is forecast by CBS. As a matter of a simple order the FCC could alter existing regulations to make it possible for

translators already in operation to accept modulation from AM stations with absolutely no negative impact as forecast by CBS.

Other aspects concerning power levels and application priority for new translators will of course take more study.

In other comments I have asked that the power level for translators be raised to a level that could in fact provide satisfactory service from the location of the AM towers , however in no case would such power need to be anywhere near 50 kilowatts.. For my operation at WGTO 250 watts at 80 meters would be more than satisfactory.